1. (previously cancelled)

9. ~~2.~~ (allowed) The illumination device of claim ~~1~~ 8 in which said elongated light source is a multiplicity of spaced point light sources arranged in a line extending substantially along said light receiving surface.

10. ~~3.~~ (allowed) The illumination device of claim ~~2~~ 9 in which said point light sources are light emitting diodes.

11. ~~4.~~ (allowed) The illumination device of claim ~~3~~ 10 in which said light emitting diodes have an oval shape with a major axis extending in a direction along said line.

5. (previously cancelled)

15. ~~6.~~ (allowed) The illumination device of claim ~~1~~ 8 in which said housing comprises a flexible material, and said electrical connecting member is sufficiently flexible so as to be bent to conform to any non-linear shape formed by said housing.

16 ~~7.~~ (allowed) The illumination device of claim ~~6~~ 15 in which said electric connecting member is a flexible ribbon.

17. ~~8.~~ (allowed) The illumination device of claim ~~11~~ 8 including a light transmitting material filling an interior space of said housing to maintain positioning of said light source and electric connecting member within said housing.

Cont.

18. ~~9.~~ (allowed) The illumination device of claim ~~8~~ 17 in which said light transmitting material is transparent.

19 ~~10.~~ (allowed) The illumination device of claim ~~8~~ 17 in which said light transmitting material has light scattering characteristics.

20 ~~11.~~ (allowed) The illumination device of claim ~~8~~ 17 in which said light source is comprised of a plurality of light emitting diodes, and said light transmitting material has an index of refraction essentially matching the index of refraction of said light emitting diodes.

21. ~~12.~~ (allowed) The illumination device of claim ~~8~~ 17 in which said light transmitting material forms a bottom wall extending along the length of said housing, said bottom wall having a light reflecting bottom surface for reflecting light incident thereon into said waveguide.

22. ~~13.~~ (allowed) The illumination device of claim ~~8~~ 17 in which said light transmitting material is a heat conductor.

23. ~~14.~~ (allowed) The illumination device of claim ~~2~~ 9 including a light transmitting spacer member positioned between said light source and said light receiving surface and in an substantially abutting relationship with said light source.

24. ~~15.~~ (allowed) The illumination device of claim ~~11~~ 8 in which said waveguide and said housing are integral and comprised of an impact resistant material.

12. ~~16.~~ (allowed) The illumination device of claim ~~3~~ 10 wherein the light emitting diodes have housings aligned in an essentially upright position with an apex of each housing juxtaposed to said light receiving surface of said waveguide.

13. ~~17.~~ (allowed) The illumination device of claim ~~3~~ 10 wherein the light emitting diodes have housings tilted with respect to the length of the waveguide.

14. ~~18.~~ (allowed) The illumination device of claim ~~3~~ 10 wherein the light emitting diodes have housings arranged in an inverted positions with respect to said light receiving surface.

19. (previously cancelled)

20. (previously cancelled)

21. (previously cancelled)

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22. (previously cancelled)

23. (previously cancelled)

~~24.~~ 26. (allowed) The illumination device of claim ~~22~~ 25 in which the interior of said surfaces of said side walls are covered with a light reflecting material and exterior surfaces are covered with a light absorbing material.

~~25.~~ 27. (allowed) The illumination device of claim ~~22~~ 25 including a spacer member made of transparent material positioned and filling a portion of the volume between said point light sources and said member.

~~26.~~ 28. (allowed) The illumination device of claim ~~25~~ 27 including a spacer member made of transparent material positioned and filling a portion of the volume between said point light sources and said member.

~~27.~~ 29. (allowed) The illumination device of claim ~~22~~ 25 in which said point light sources are LEDs.

~~28.~~ 30. (allowed) The illumination device of claim ~~27~~ 29 in which said electrical member is connected to a processor programmed to cause said LEDs to flash independently.

31. ~~29.~~ (allowed) The illumination device of claim ~~28~~ 30 in which the LEDs flash in a timed sequence.

32. ~~30.~~ (allowed) The illumination device of claim ~~28~~ 30 in which said LEDs are flashed in successive groups along the length of the first string thereby simulating movement.

34. ~~31.~~ (allowed) The illumination device of claim ~~27~~ 27 including a multiplicity of LEDs mounted in a second string positioned within said volume and extending in the direction of elongation of said housing, said second string connected with said electrical member so as to be independently energized.

33. ~~32.~~ (allowed) The illumination device of claim ~~30~~ 32 in which said LEDs of said first string are alternatively positioned along the length of said housing with said LEDs of said second string.

35. ~~33.~~ (allowed) The illumination device of claim ~~31~~ 34 in which said LEDs of said first string emit a different color of light from the LEDs of said second string.

1. ~~34.~~ (allowed) A method of making an illumination device capable of simulating neon lighting, comprising the steps of:

forming an essentially solid rod with a predetermined length and a pair of lateral surfaces from material having optical waveguide and light scattering properties such that light entering a first of said lateral surfaces is caused to form an essentially elliptically shaped light intensity pattern that has a major axis in a direction substantially parallel to said predetermined length;

placing a housing having a pair of spaced walls defining a volume in connected relationship with said first lateral surface;

bending said rod and said housing into a desired shape;

positioning a plurality of spaced point light sources connected to a flexible electrical connecting member within said volume between said side walls; and

essentially filling said volume with a potting material transmitting light.

2. ~~35.~~ (allowed) The method of claim 1 ~~34~~ wherein said rod and housing are formed as an integral unit.

3. ~~36.~~ (allowed) The method of claim 1 ~~34~~ wherein said side walls have interior surfaces that are light reflecting.

4. ~~37.~~ (allowed) The method of claim 1 ~~34~~ in which said point light sources are LEDs.

5. ~~38.~~ (allowed) The method of claim ~~37~~ 4 in which said LEDs have transparent housings and said potting compound has an index of refraction essentially matching an index of refraction of said transparent housings.

Cont.

6. ~~39.~~ (allowed) The method of claim ~~37~~ 4 in which said LEDs have tinted housings.

7. ~~40.~~ (allowed) The method of claim ~~34~~ 1 wherein said side walls have exterior surfaces that are light absorbing.

8. ~~41.~~ (allowed) An illumination device for simulating neon lighting, comprising:

a substantially rod-like member having a predetermined length with a lateral light receiving surface and a lateral curved light emitting surface having a predetermined circumferential width, said member being comprised of a material that has both optical waveguide and light scattering properties that preferentially scatters light entering said light receiving surface into an elongated light intensity pattern on said light emitting surface with a major axis extending along said predetermined length;

an elongated light source extending along and positioned adjacent said light receiving surface and spaced from said light emitting surface a sufficient distance to allow said light intensity pattern on said emitting surface to have a minor axis extending substantially the entire circumferential width of said light emitting surface;

a housing in which said light source is positioned, said housing extending along said light receiving surface and having a pair of side walls, each with an interior light reflecting surface and an exterior light absorbing surface; and

an electric connecting member positioned within said housing and adapted to connect said light source to a remote power source.

25. ~~42.~~ (allowed) An illumination device for simulating neon lighting, comprising:

a light transmitting member of a predetermined length having a substantially curved front surface and a light receiving lateral surface, said member being comprised of a material that has both optical waveguide and light scattering properties that preferentially scatters light entering said light receiving surface into an elongated light intensity pattern on said light emitting surface with a major axis extending along said predetermined length;

a housing having spaced side walls abutting said light receiving lateral surface and defining a volume extending along said predetermined length of said light transmitting member, said side walls having light reflecting interior surfaces and a light absorbing exterior surfaces; and

a multiplicity of spaced point light sources housed within said volume and extending along said predetermined length, said spaced point light sources positioned a distance from said curved front surface sufficient to allow a light intensity pattern from each of said point light sources to overlap neighboring light intensity patterns so that the light intensity pattern collectively emitted from said front surface appears uniform.

43. (cancelled)

44. (cancelled)

45. (cancelled)

46. (cancelled)

47. (cancelled)

48. (cancelled)

49. (cancelled)

50. (cancelled)

51. (cancelled)